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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,921	01/07/2004	Giora Biran	FIS920030297US1	5776

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EXAMINER

ABELSON, RONALD B.

ART UNIT	PAPER NUMBER
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2619

NOTIFICATION DATE	DELIVERY MODE
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01/18/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hwdpatents.com

Office Action Summary

Application No.

10/752,921

Applicant(s)

BIRAN ET AL.

Examiner

Ronald Abelson

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 15, 16, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan (US 2004/0047361) in view of Madany (US 6,938,134).

Regarding claims 1 and 15, Fan teaches providing a plurality of data blocks (fig. 4 buffers 426) and an indirect list (record, [0042]);

pointing, via entries in the indirect list, to allocated data blocks in the plurality of data blocks that currently store incoming data (record containing location of generic buffer containing written data, [0042]);

if a free data block in the plurality of data blocks is required for the storage of incoming data, allocating the free

data block for storing incoming data (fig.4box426a, generic buffer from pool of generic buffers may be allocated, [0042]); and,

Although Fan teaches allocating a free block from the plurality of data blocks, the reference is if an allocated data block in the plurality of data blocks is no longer needed for storing incoming data, deallocating the allocated data block such that the deallocated data block becomes a free data block.

Madany teaches both allocating a free block from the plurality of data blocks and if an allocated data block in the plurality of data blocks is no longer needed for storing incoming data, deallocating the allocated data block such that the deallocated data block becomes a free data block (col. 4 lines 20-27).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Fan by performing deallocation of the generic buffers no longer needed, as shown by Madany. This modification would benefit the system by freeing up data buffer space.

Regarding claims 2, 16, the incoming data comprises TCP data (Fan: [0042]).

Regarding claims 5 and 19, as previously shown the combination teaches the plurality of data blocks comprises a pool of free data blocks (Fan: fig. 4 elements 426, a generic buffer from the pool of generic buffers may be allocated, [0042]), allocating free data blocks from the pool of free data blocks (Fan: fig. 4 elements 426, a generic buffer from the pool of generic buffers may be allocated, [0042]) and deallocating data blocks (Madany: col. 4 lines 20-27). Regarding the use of a free list, the use of lists to store information is well known in the art and is not novel.

Regarding claim 21, a computer program product stored on a recordable medium, which when executed, performs the method set forth in claim 1 (Fan: computer program, [0018]).

3. Claims 1, 3, 4, 15, 17, 18, and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Cornet (US 2003/0137936) in view of Madany (US 6,938,134).

Regarding claims 1, 15, Cornet teaches providing a plurality of data blocks (fig. 5a elements 320) and an indirect list (CI table 500(1), FIFO list 502, [0064]);

pointing, via entries in the indirect list, to allocated data blocks in the plurality of data blocks that currently store incoming data (accesses FIFO list 502 to identify which packet reassembly buffer, [0064]);

Cornet is silent on if a free data block in the plurality of data blocks is required for the storage of incoming data, allocating the free data block for storing incoming data; and, if an allocated data block in the plurality of data blocks is no longer needed for storing incoming data, deallocating the allocated data block such that the deallocated data block becomes a free data block.

Madany teaches the dynamic allocation and deallocation of data blocks (col. 4 lines 20-27).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Cornet by dynamically allocating and deallocating data blocks, as shown by Madany. This modification would benefit the system by the judicious use of resources.

Regarding claims 3 and 17, a plurality of indirect lists chained together (Cornet: CI table 500(1) indicates packet is queued in one of single-cell packet reassembly queues, reassembly queue assignment module then accesses FIFO list 502, [0064])).

Regarding claims 4 and 18, an entry in one of the plurality of indirect lists contains a pointer to another of the plurality of indirect lists (Cornet: CI table 500(1) indicates packet is queued in one of single-cell packet reassembly queues, reassembly queue assignment module then accesses FIFO list 502, [0064])).

Regarding claim 22, Cornet teaches providing a plurality of data blocks (fig. 5a elements 320) and an indirect list having a

plurality of entries (fig. 5a CI table 500(1), FIFO list 502, [0064]);

providing each data segment with a sequence number (fig. 5a element 258), wherein the sequence number specifies which entry in the indirect list is to be associated with the data segment (accesses FIFO list 502 to identify which single-cell packet reassembly queue 320 positioned at top of list, [0064]);

determining if any of the plurality of data blocks has already been allocated to the specified entry in the indirect list (accesses FIFO list 502 to identify which single-cell packet reassembly queue 320 positioned at top of list, [0064]);

if a data block has already been allocated to the specified entry, storing the data segment in the allocated data block sends packet 306m to single-cell packet reassembly queue, [0064]);

Cornet is silent on if a data block has not already been allocated to the specified entry, allocating a free data block for the storage of the data segment, and storing the data segment in the allocated free data block.

Madany teaches allocating a free data block for the storage of the data segment (col. 4 lines 20-27) and storing the data

in the allocated free data block (when block no longer needed, col. 4 lines 20-27). Note, the block is needed for storing information.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Cornet by dynamically allocating data blocks, as shown by Madany. This modification would benefit the system by providing storage for an entry that has not previously been specified.

4. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Fan and Madany as applied to claim 1 above, and further in view of Arimoto (US 5,798,976).

Although the combination teaches allocation and deallocation of the reassembly buffer, the combination is silent on selectively operating the reassembly buffer in a static mode by not deallocating allocated data blocks.

Arimoto teaches selectively operating a buffer in a static or dynamic mode (col. 43 lines 39 - 43).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by selectively operating the reassembly buffer in a static mode or dynamic, as suggested by Arimoto. This modification can be

performed by not deallocating an unused allocated data block when the data block is likely to be needed in a short time period. This modification would benefit the system by saving time by not reallocating the data block.

In determining the appropriate standard for obviousness the Supreme Court in KSR International Co. v. Teleflex Inc. et al, 550 U.S._____(2007) reaffirmed the standard of review under Graham v. Deere 383 U.S. 1, 148 USPQ 459 (1966). It held that the standard of teaching, suggestion, or motivation (TSM) was appropriate. But it also held that obviousness is not strictly limited to the TSM requirements. One must consider the totality of the art from the point of view of a skilled artisan. Thus, the fact that a reference teaches one way of doing something does not preclude a finding of obviousness when items are combined for a different function. The Court specifically stated that "if a person of ordinary skill in the art can implement a predictable variation, Section 103 likely bars its patentability." While the court stated that mere conclusory statements is an insufficient reason to combine

known elements, it stated that "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take into account of the inferences and creative steps that a person of ordinary skill in the art would employ." This evaluation includes the use of common sense and whether the combination of familiar elements according to known methods yields predictable results.

Regarding claims 6-13, 20, and 23-25, the claims contain well known engineering techniques and produce predictable results and therefore are neither novel nor patentable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7439. The fax phone number for the

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organization where this application or proceeding is assigned is
571-273-8300.

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(IN USA OR CANADA) or 571-272-1000.



Ronald Abelson
Examiner
Art Unit 2619
